

REMARKS

Claims 1-15 are pending, with claims 1-12 rejected, and claims 13-15 added. No new matter has been added.

Claims 1-3, 5-6, and 9-11 were rejected by the Examiner under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent 6,954,618 issued to Corinne Bonhomme ("Bonhomme"). Claims 4 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonhomme as applied to Claim 1 in view of U.S. Patent 6,445,692 issued to Michail K. Tsatsanis ("Tsatsanis"). Claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonhomme as applied to Claim 5 in view of U.S. Patent 6,901,243 issued to Srikant Jayaraman et al. ("Jayaraman"). Claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonhomme in view of Jayaraman as applied to Claim 7, and further in view of Tsatsanis. Applicant respectfully traverses these rejections for the reasons set forth below.

Independent claims 1, 5, and 9, and new independent claim 15, each recite a "predetermined recursive digital filter." Similarly, new independent claim 13 recites a "recursive digital filter."

In contrast, Bonhomme's digital filter 35 is not a recursive digital filter (i.e., an infinite impulse response filter) in which filter coefficients are calculated based on the MMSE optimality criterion.

Thus, independent claims 1, 5, 9, 13, and 15, along with their dependent claims, are not anticipated by Bonhomme for at least this reason.

Dependent claims 4 and 12, and new dependent claim 14, each recite "wherein the filter coefficients of said sets are calculated by averaging over various values of the signal-to-interference and noise ratio." Somewhat similarly, dependent claim 8 recites "wherein the filter coefficients of said sets are calculated by averaging over different values of the signal-to-interference and noise ratio."

In contrast, Tsatsanis teaches calculating an averaged signal-to-interference and noise ratio $SINR_{av}[i]$, rather than calculating filter coefficients by averaging over various values of the signal-to-interference and noise ratio. Calculating the average of a first quantity is different than

calculating a second quantity by averaging over values of the first quantity. Tsatsanis therefore relates to completely different mathematical schemes. Thus dependent claims 4, 8, 12, and 14 are further patentable over the applied references for this additional reason.

In view of the above, Applicant believes the application is in condition for allowance.

In the event a fee is required or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge the underpayment to Deposit Account No. 50-2215.

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Respectfully submitted,

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